

this study is to determine the cost-effectiveness of a PCV13 vaccination program versus a PPSV23 program in high risk adults 18 years old and over with a coverage of 100% and in healthy adults 65 years old with a coverage of 90%, in the Chilean Health System. **METHODS:** A cost/utility study was performed using a Markov model (population data for a time horizon of 10 years). Utilities and epidemiological data like incidence, mortality, and consequences of pneumococcal disease were obtained from Chilean, Latin American and International published literature. Vaccine's efficacies were taken from literature for PPSV23 and from the Community-Acquired Pneumonia Immunization Trial in Adults (CAPITA) for PCV13. Direct and indirect costs were considered and were obtained from FONASA, the Chilean Public Health Insurance. Vaccine's costs and quality-adjusted life of years (QALYs) were determined and compared. **RESULTS:** With a PCV13 vaccination program, 107 cases of bacteremia, 13 of meningitis, 6,706 of inpatient pneumonia, 4,509 of outpatient pneumonia and 1,189 deaths were avoided compared with PPSV23 program. The total cost over the 10 year period studied, and for the total population of 12,773,697 people, was \$1,994,404 for PCV13 and \$2,026,510 for PPSV23. For PCV13, QALYs were 11,484,554 and for PPSV23, QALYs were 11,479,124, thus the Incremental Cost/Effectiveness Ratio (ICER) was dominant for PCV13, and these results do not vary with sensitivity analysis on high impact variables. **CONCLUSIONS:** A PCV13 vaccination program is dominant over a PPSV23 program, and a population program with PCV13 would save public health expenses and reduce morbidity, mortality and disability in Chilean adults over 18 years old. These results appear to be robust under a variety of sensitivity analysis.

INFECTION - PATIENT-REPORTED OUTCOMES & PATIENT PREFERENCE STUDIES

PIN78 PREDICTING HUMAN IMMUNODEFICIENCY VIRUS VETERANS' ADHERENCE TO ANTIRETROVIRAL AGENTS VIA OPTIMAL DATA ANALYSIS

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OBJECTIVES: Human immunodeficiency virus (HIV) treatment guidelines recommend target adherence levels of 95% and suggest that treatment be postponed in patients at risk of poor adherence. Little objective guidance is provided to clinicians for identifying such patients. We applied an optimal data analysis (ODA) paradigm to create predictive models for adherence in a national cohort of United States veterans using electronic medical records (EMRs) by maximizing predictive accuracy. **METHODS:** Quarterly adherence to antiretroviral agents was calculated as the proportion of days covered (PDC) with 3 or more antiretroviral agents from 2 or more drug classes. A hierarchical decision tree was built to predict patient adherence at different adherence thresholds of 75%, 80%, 85%, 90% and 95%. The attribute variables included demographics, comorbidities, and disease characteristics. Three rules were applied to pick the predictors: 1) at each decision point, the attribute with the lowest Fisher's exact p-value was selected; 2) leave-one-out jackknife analysis was performed to select a stable attribute; and 3) dividing a branch of decision tree was stopped if the branch had less than 15 patients. **RESULTS:** 3864 HIV patients newly initiated highly active antiretroviral therapy in 1998-2006. The mean age of the cohort was 56.3±9.4 year old and 98.4% were males. The mean (95% CI) PDC in quarter 1 was 20.9% (41.6-45.0) and reached a maximum of 43.3% (20.2-21.7) in quarter 26. The ODA models for different thresholds predicted adherence with a C-statistic of 0.58-0.63, a range of accuracy defined as no discrimination to poor discrimination. Patients who were most non-adherent were those who were <60 years old, black, treated with protease inhibitors and drug abuser. **CONCLUSIONS:** Using discrete data in the EMRs, it is difficult to predict patients at risk of poor adherence. Future work should include more complex predictors such as patient adherence to other therapies.

PIN79 THE RELATIONSHIP BETWEEN PATIENT-RELATED FACTORS AND MEDICATION ADHERENCE AMONG NIGERIAN PATIENTS TAKING HIGHLY ACTIVE ANTIRETROVIRAL THERAPY

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OBJECTIVES: The objectives of this study were to describe and compare adherence rates and to determine what factors are related to adherence to therapy among patients living with HIV/AIDS receiving Highly Active Antiretroviral Therapy (HAART) in a treatment center in Lagos, Nigeria. **METHODS:** Patients in the study were living with HIV/AIDS, 18 years or older, receiving HAART, and had visited the clinic between June and July 2012. Adherence was measured using two self-reported measures: number of doses taken over the past two weeks/number of doses provided over the past two weeks and the valid and reliable Morisky scale. Barriers, satisfaction with therapy, and sociodemographic and clinical variables served as independent variables. Data were collected via self-administered surveys. Descriptive statistics, Pearson's correlation, McNemar's test, Pearson's chi-square test, analysis of variance, and logistic regression were used to address study objectives. **RESULTS:** The majority of the study sample (N=361) were between 18 and 40 (64.9%), female (58.3%), married (64.8%), working (83.8%), and on HAART for at least one year (82.0%) while a plurality of the sample had a college education (46.5%). Most of the patients (79.5%) reported 100% adherence using two-week self-recall and 49.6% using the Morisky scale. Both methods used to measure adherence were significantly correlated ($\rho=0.476$; $p<0.001$). The significant ($p<0.01$) barriers to adherence between those 100% and <100% adherent were forgetfulness, running out of medication, alcohol use, and medication side effects. Multivariate logistic regression analysis showed that for every unit increase in the number of barriers, patients were 60.8% less likely to be 100% adherent ($p<0.001$, OR=0.392, 95% CI=0.295-0.523). **CONCLUSIONS:** Interventions should target helping patients

cope with forgetfulness, specifically employing strategies to overcome busyness in schedules, being away from home and tiredness.

PIN80 TRADITIONAL MEDICINE USE AND ITS IMPACT ON ANTIRETROVIRAL THERAPY ADHERENCE AMONG HIV PATIENTS IN ETHIOPIA

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OBJECTIVES: The study aimed to assess the pattern of traditional medicine(TM) use and its impact on antiretroviral therapy (ART) adherence among HIV patients in Addis Ababa, Ethiopia. **METHODS:** A cross-sectional study was conducted among HIV patients on ART in Addis Ababa public ART clinics, from September to October 2013. The study population consisted of 845 HIV patients who were on ART at least for six months, selected by systematic sampling technique from nine randomly selected clinics. Data were collected by trained health professionals through face-to-face interview of patients, using pre-tested questionnaire. Data were entered to Epi-info version 7 and analyzed by SPSS version 16. Logistic regression was used to assess the impact of TM use on ART adherence. **RESULTS:** Eight hundred forty-five patients were included in the study, 572 (67.7%) of which were females. A third (33.2%) of the patients were TM and ART concomitant users. Most frequently used TM were *Alium sativum* (34%) and *Ocimum lamifolia* (28%); mainly for the purpose of managing HIV/AIDS related symptoms (61.2%). Most (68.7%) of the patients were using TM without consulting health professionals. Factors independently associated with concomitant TM and ART use were perceived quality of service in ART clinics (poor vs good, AOR 2.35; 95% CI 1.78-3.44), number of ART side effects reported (≥ 3 vs ≤ 1 , AOR 2.61 95%CI 1.53-5.47) and self-perceived health status (poor vs good, AOR 2.14; 95% CI 1.62-6.31). Concomitant TM and ART use had statistically significant association with poor ART adherence (AOR 3.15; 95% CI 2.32-6.32). **CONCLUSIONS:** The study revealed that many patients used TM concomitant to ART. Since TM use among the patients was found to impact their ART adherence and because of the possibility for interaction, patients should be advised to consult their health care providers when they need to take TM while on ART.

PIN81 USE OF HEALTH BELIEF MODEL TO UNDERSTAND KNOWLEDGE, ATTITUDES AND BEHAVIORS OF PEOPLE TOWARDS THE EBOLA OUTBREAK

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OBJECTIVES: The outbreak of Ebola in 2014 has been the largest in history, affecting multiple countries in West Africa and cases were diagnosed within the United States as well. This study uses the framework of the Health Belief Model and aims to understand the perceptions of a cohort of individuals in Houston, Texas towards this outbreak, measured as the likelihood of performing preventive behaviors. **METHODS:** This is a prospective, cross sectional study design with an anonymous, self-administered survey based on the constructs of the Health Belief Model. Individuals aged 18 or older were requested for their participation by convenience sampling at public places in Houston, Texas between 4th November and 28th December 2014. The variables measured were perceived susceptibility, perceived severity, perceived threat, knowledge about Ebola, self-efficacy and existing health belief. For statistical analysis the Health Belief Model based statements in the survey were grouped as per domain, the scores were summed up to give the variable values, which were tested in a multiple regression model. **RESULTS:** A total of 283 participants aged 18 to 74 (Mean: 34.5±12.7, 54.8% male) completed the survey. Of the Health Belief Model constructs tested for, perceived susceptibility ($p=0.0366$), perceived threat ($p<0.0001$), educational level ($p=0.0470$), actively following the news ($p=0.0015$) and existing health belief ($p=0.0003$) were predictors of the likelihood to perform preventive health behaviors. **CONCLUSIONS:** The Health Belief Model adequately predicted public perception regarding their belief about the threat of the disease and susceptibility towards the disease. Educating the public about the actual risks of Ebola in United States through various media can elicit appropriate behavior in any future cases of outbreak within the United States.

PIN82 KNOWLEDGE GAPS ABOUT PNEUMONIA IN OLDER ADULTS: BASELINE RESULTS FROM THE PHARMACISTS' PNEUMONIA PREVENTION PROJECT

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OBJECTIVES: We sought to identify pneumonia knowledge among participants in the Pharmacist's Pneumonia Prevention Project (PPPP), a community-based education and vaccination program administered to older Philadelphians in 2014. **METHODS:** Participants were aged 50+, cognitively intact, English speaking and recruited from senior centers and churches with a predominantly black population in Philadelphia. This analysis reports baseline data which were collected prior to delivery of PPPP. Knowledge and awareness of pneumonia was assessed with a 22-item questionnaire encompassing the following domains: susceptibility to infection, symptoms of disease, severity of illness, and vaccination with an emphasis on vaccine efficacy, safety, and eligibility. **RESULTS:** 203 individuals were enrolled, of whom 75% were female and 80% were black, with a mean age of 74(SD 9) years. Additionally, 148 (73%) participants had at least a high school education. Of the 203 participants, 97 (48%) described pneumonia in their own words, but only 33 of these (34%) correctly described it as an infection in the lungs. When asked about the best way to prevent pneumonia, 47% of participants reported answers other than vaccination. Compared to women, more men were unaware of the individuals who were at risk of getting pneumonia. Specifically, 81% of men did not think that the very young were at risk of getting the disease (vs. 56% of women; $p=0.032$). Additionally, 76% of men were unaware that patients with a low immune system were at risk for pneumonia (vs. 39% of women; $p=0.002$). **CONCLUSIONS:** Findings revealed critical knowledge gaps about pneumonia, underscoring the need for educational approaches which resonate with